1/30

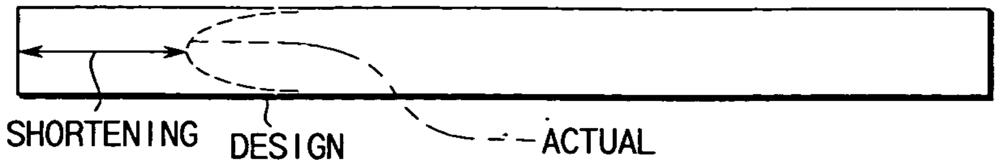


FIG. 1

CORRECTING FLOW

A PORTION WHERE A LINE PORTION OVERLAPS A CONTACT PORTION IS EXTRACTED (FIG. 3A) ~ST. 1

↓

THE DISTANCE BETWEEN THE ABOVE OVERLAPPED PORTION AND AN ADJOINING LINE PATTERN, AND A LINE WIDTH IS EXTRACTED ON DESIGN (FIG. 3B) ~ST. 2

↓

USING THE PATTERN AS IN FIG. 3C, LINE WIDTH VARIATION AMOUNT IS MEASURED ~ST. 3

↓

A CORRECTION RULE FOR THE DISTANCE TO THE ABOVE ADJOINING LINE PATTERN IS ESTABLISHED (FIG. 3D OR FIG. 3E) ~ST. 4

↓

A CORRECTION RULE IS MADE ACCORDING TO THE ABOVE CORRECTION RULE AND CORRECTION VALUES ARE EXTRACTED (FIG. 3F) ~ST. 5

↓

THE ABOVE CORRECTION VALUES ARE ADDED TO THE LINE END OF THE PORTION WHERE THE LINE PORTION OVERLAPS THE CONTACT PORTION (FIG. 3G) ~ST. 6

FIG. 2

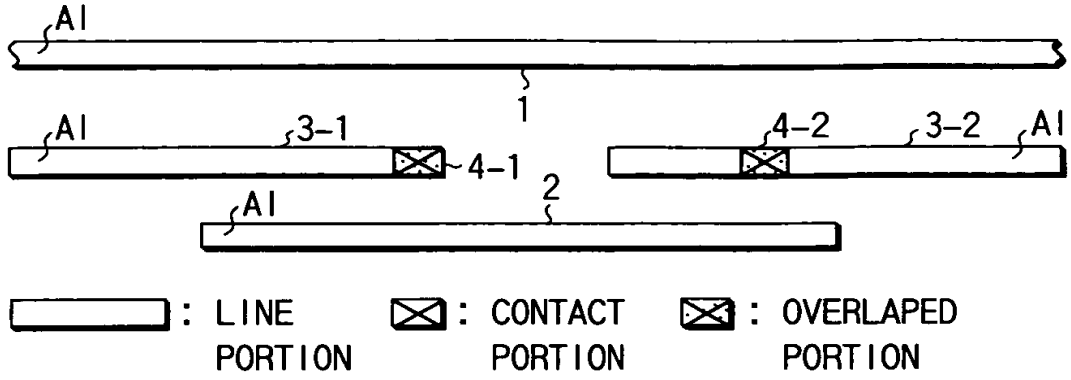


FIG. 3A

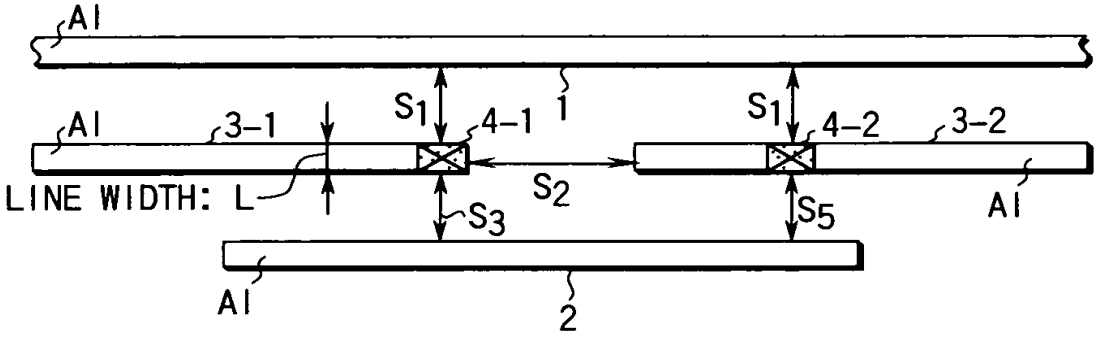


FIG. 3B

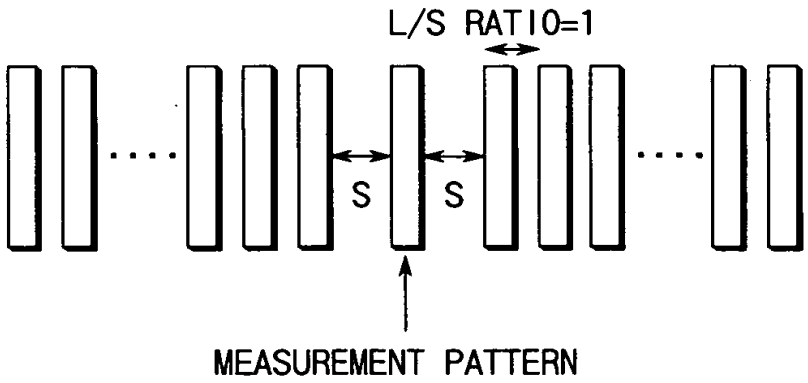


FIG. 3C

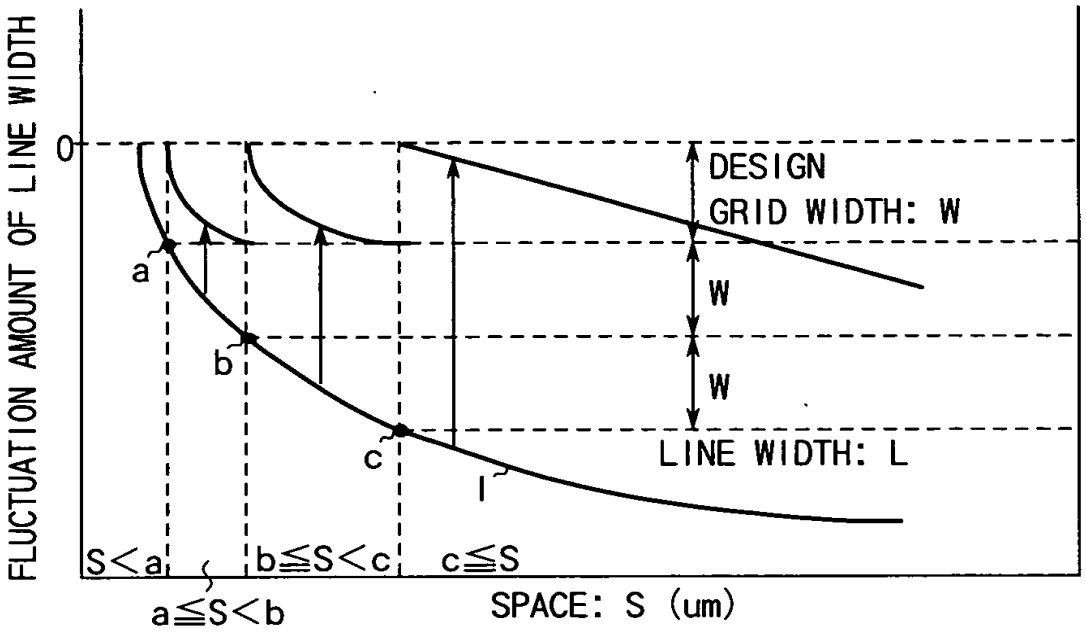

FLUCTUATION AMOUNT OF LINE WIDTH
0
DESIGN
GRID WIDTH: W
W
W
LINE WIDTH: L
a
b
c
l
S<a
a≦S<b
b≦S<c
c≦S
SPACE: S (um)

FIG. 3D

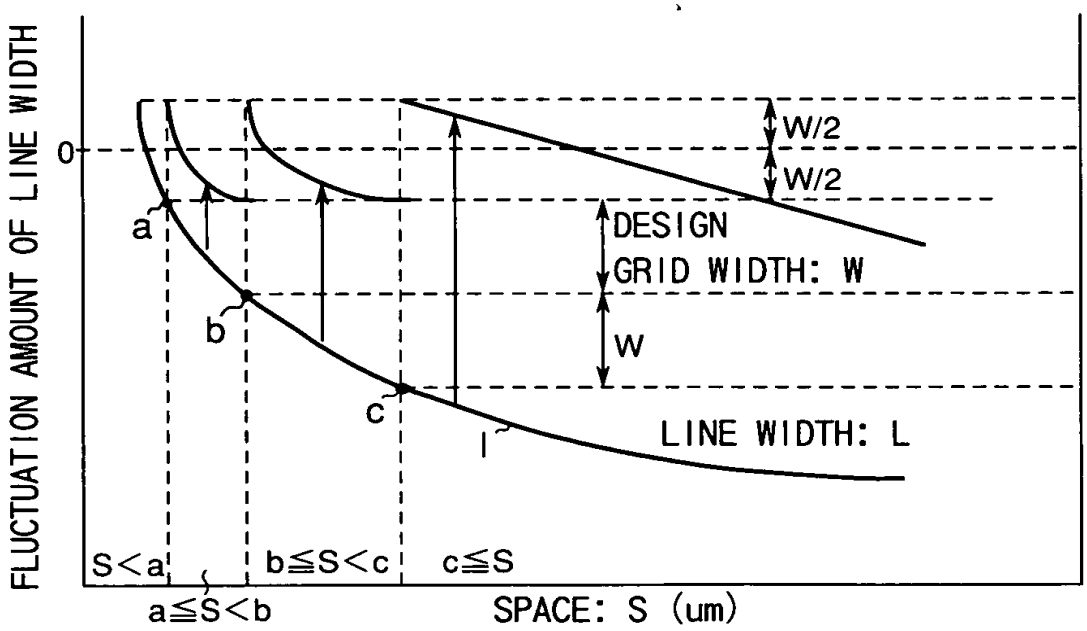

FLUCTUATION AMOUNT OF LINE WIDTH
0
W/2
W/2
DESIGN
GRID WIDTH: W
W
LINE WIDTH: L
a
b
c
l
S<a
a≦S<b
b≦S<c
c≦S
SPACE: S (um)

FIG. 3E

SPACE	FRINGE
S<a	0
a≦S<b	+W
b≦S<c	+2W
S≧c	+3W

FIG. 3F

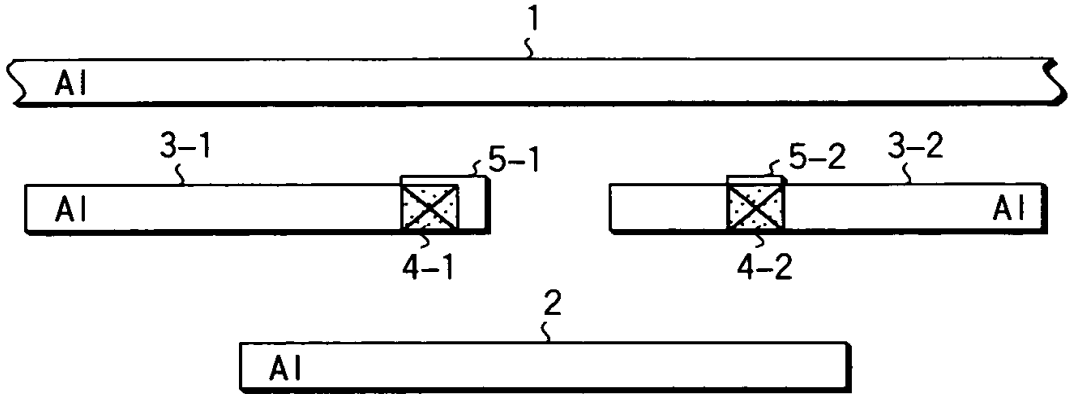
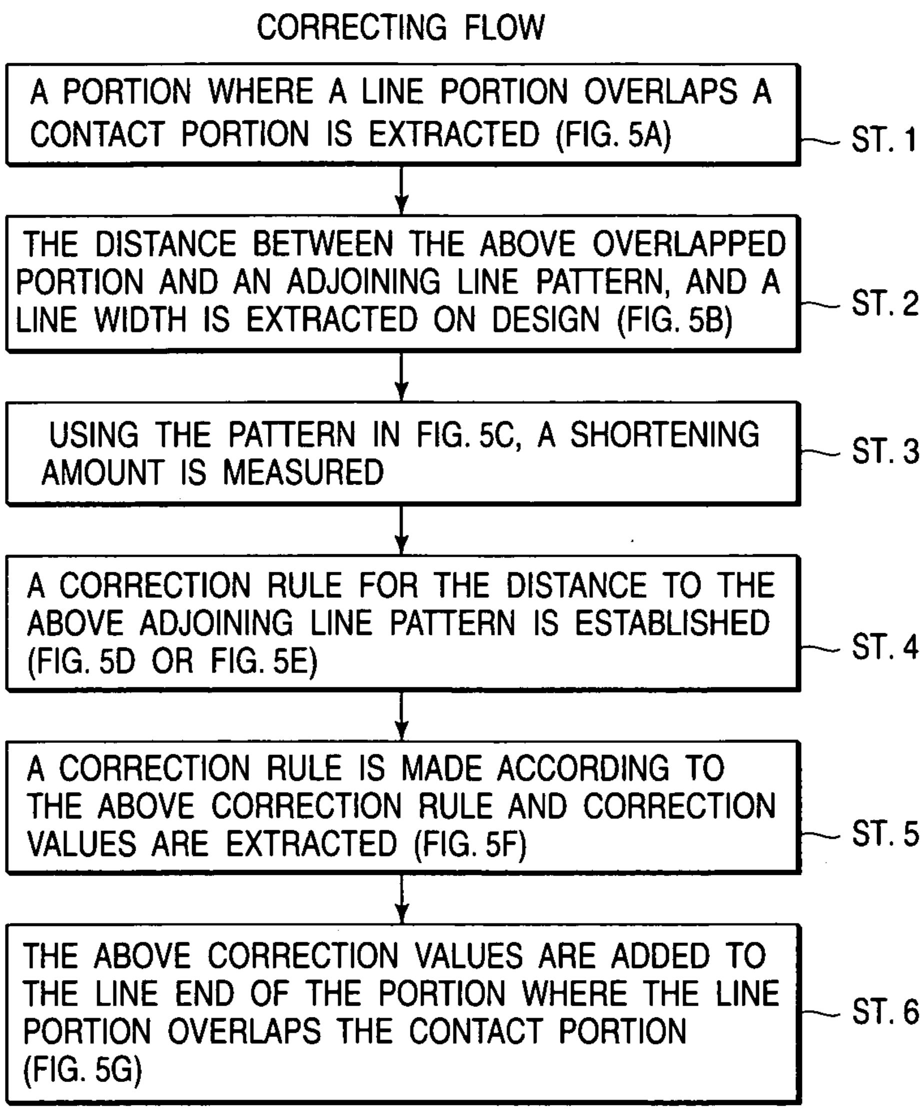


FIG. 3G


CORRECTING FLOW
A PORTION WHERE A LINE PORTION OVERLAPS A CONTACT PORTION IS EXTRACTED (FIG. 5A)
ST. 1
THE DISTANCE BETWEEN THE ABOVE OVERLAPPED PORTION AND AN ADJOINING LINE PATTERN, AND A LINE WIDTH IS EXTRACTED ON DESIGN (FIG. 5B)
ST. 2
USING THE PATTERN IN FIG. 5C, A SHORTENING AMOUNT IS MEASURED
ST. 3
A CORRECTION RULE FOR THE DISTANCE TO THE ABOVE ADJOINING LINE PATTERN IS ESTABLISHED (FIG. 5D OR FIG. 5E)
ST. 4
A CORRECTION RULE IS MADE ACCORDING TO THE ABOVE CORRECTION RULE AND CORRECTION VALUES ARE EXTRACTED (FIG. 5F)
ST. 5
THE ABOVE CORRECTION VALUES ARE ADDED TO THE LINE END OF THE PORTION WHERE THE LINE PORTION OVERLAPS THE CONTACT PORTION (FIG. 5G)
ST. 6

F I G. 4

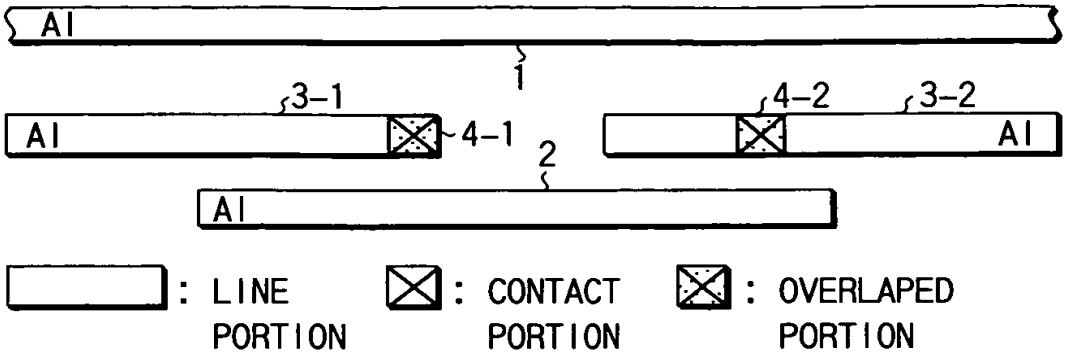


FIG. 5A

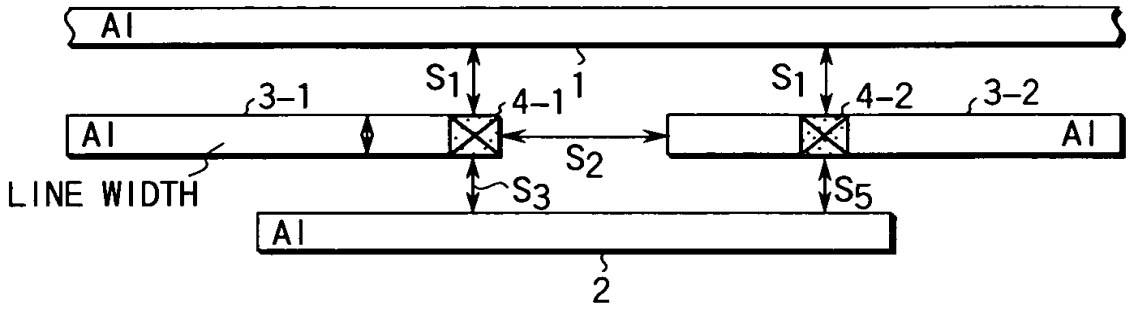


FIG. 5B

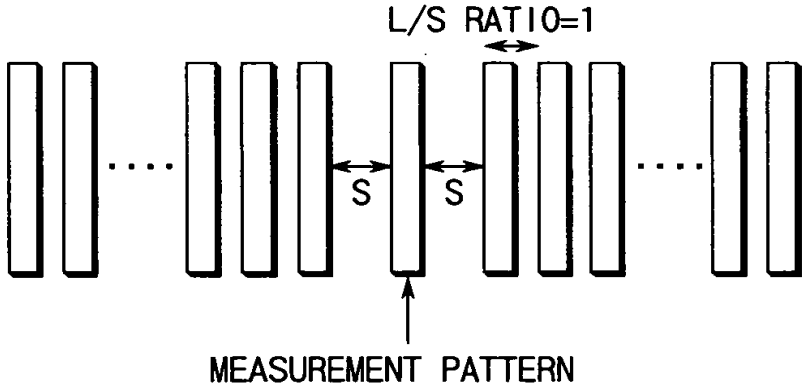


FIG. 5C

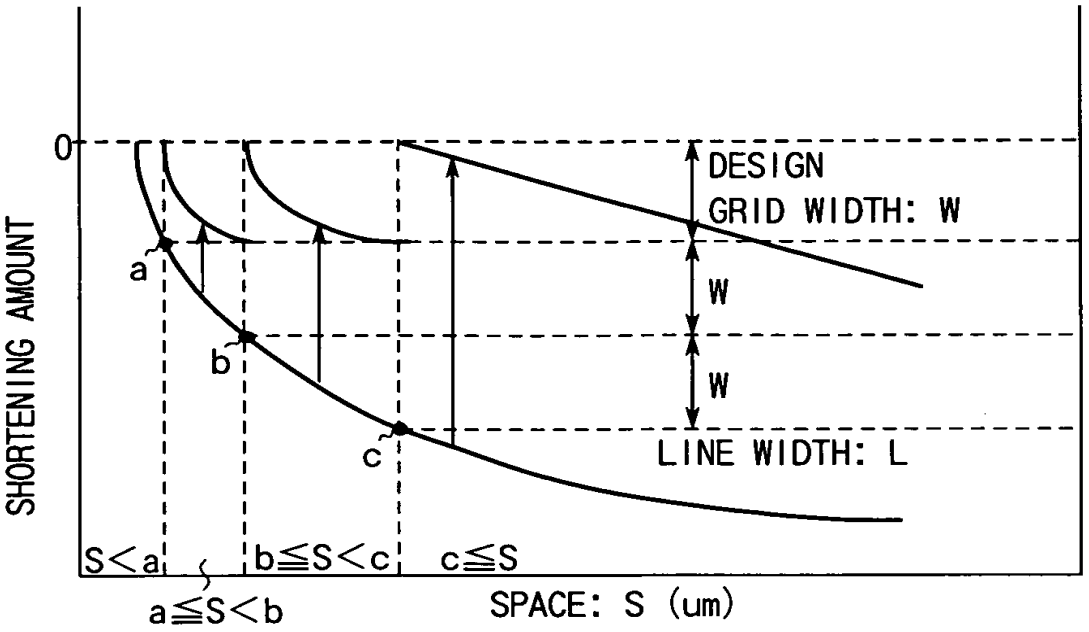

0
SHORTENING AMOUNT
DESIGN
GRID WIDTH: W
W
W
LINE WIDTH: L
a
b
c
S<a
a≦S<b
b≦S<c
c≦S
SPACE: S (um)

FIG. 5D

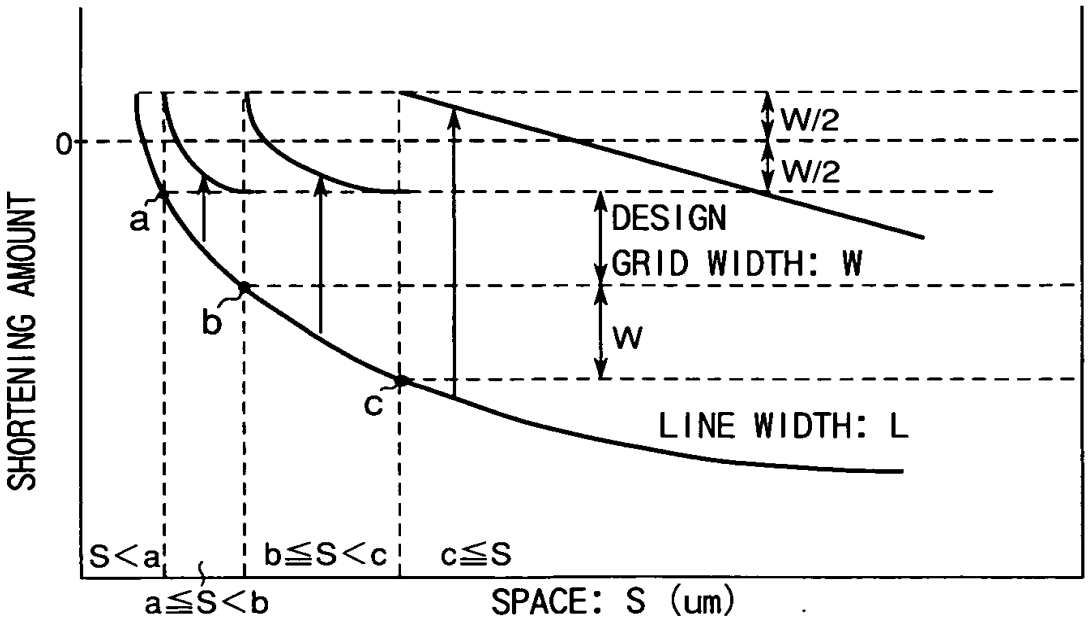

0
SHORTENING AMOUNT
W/2
W/2
DESIGN
GRID WIDTH: W
W
LINE WIDTH: L
a
b
c
S<a
a≦S<b
b≦S<c
c≦S
SPACE: S (um)

FIG. 5E

SPACE	FRINGE
S<a	0
a≦S<b	+W
b≦S<c	+2W
S≧c	+3W

FIG. 5F

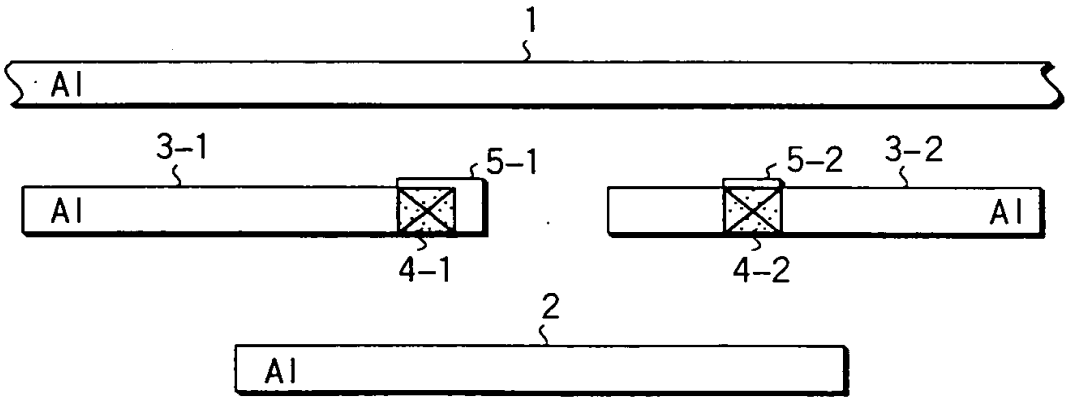


FIG. 5G

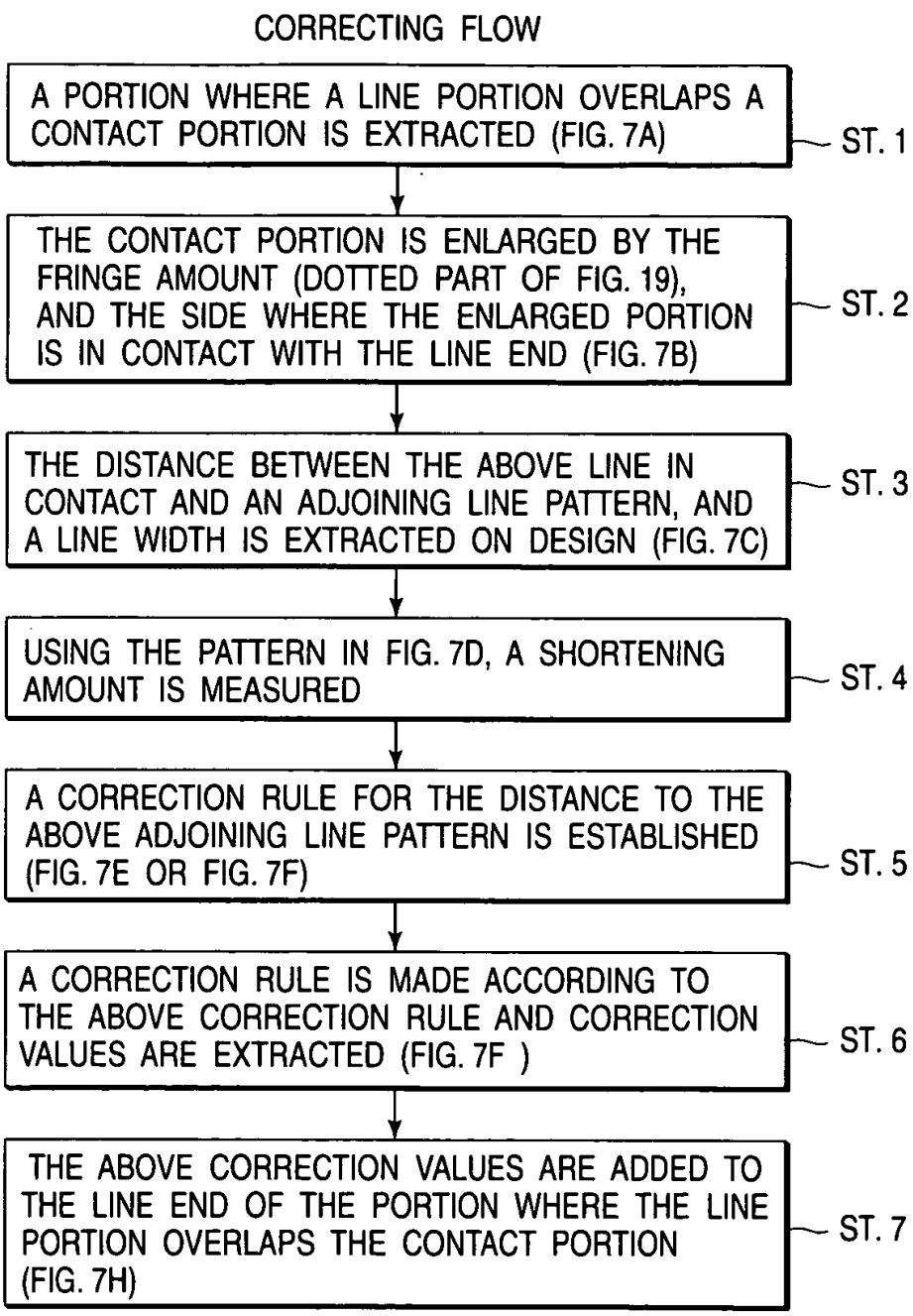

CORRECTING FLOW
A PORTION WHERE A LINE PORTION OVERLAPS A CONTACT PORTION IS EXTRACTED (FIG. 7A)
ST. 1
THE CONTACT PORTION IS ENLARGED BY THE FRINGE AMOUNT (DOTTED PART OF FIG. 19), AND THE SIDE WHERE THE ENLARGED PORTION IS IN CONTACT WITH THE LINE END (FIG. 7B)
ST. 2
THE DISTANCE BETWEEN THE ABOVE LINE IN CONTACT AND AN ADJOINING LINE PATTERN, AND A LINE WIDTH IS EXTRACTED ON DESIGN (FIG. 7C)
ST. 3
USING THE PATTERN IN FIG. 7D, A SHORTENING AMOUNT IS MEASURED
ST. 4
A CORRECTION RULE FOR THE DISTANCE TO THE ABOVE ADJOINING LINE PATTERN IS ESTABLISHED (FIG. 7E OR FIG. 7F)
ST. 5
A CORRECTION RULE IS MADE ACCORDING TO THE ABOVE CORRECTION RULE AND CORRECTION VALUES ARE EXTRACTED (FIG. 7F)
ST. 6
THE ABOVE CORRECTION VALUES ARE ADDED TO THE LINE END OF THE PORTION WHERE THE LINE PORTION OVERLAPS THE CONTACT PORTION (FIG. 7H)
ST. 7

FIG. 6

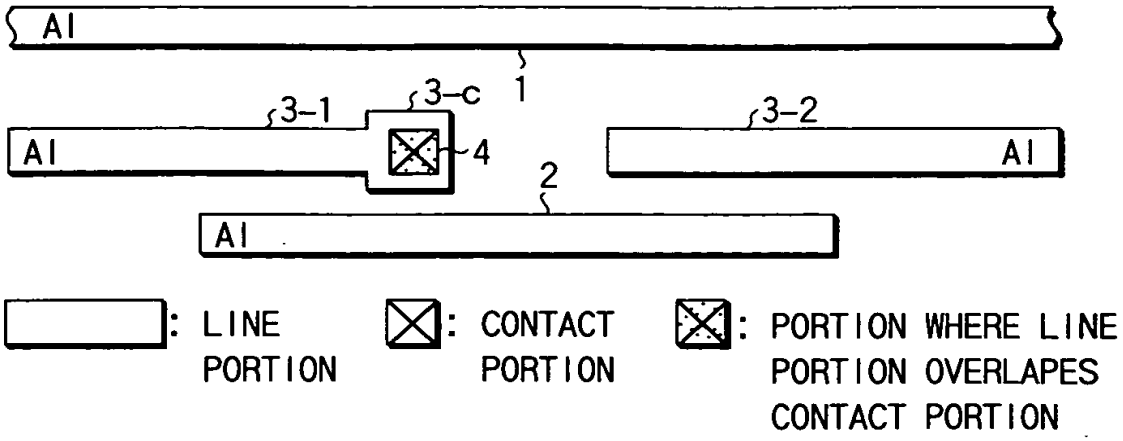


FIG. 7A

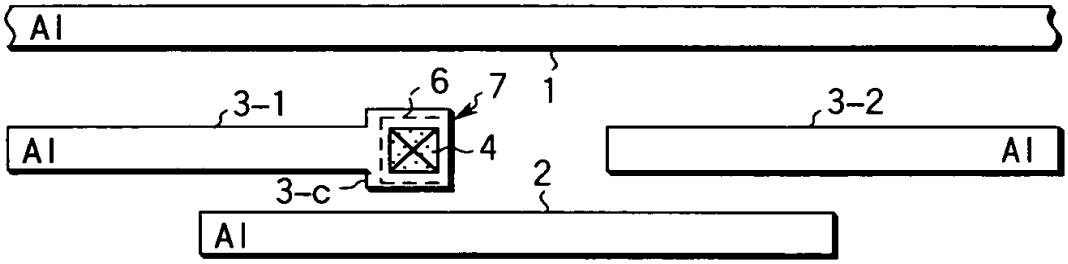


FIG. 7B

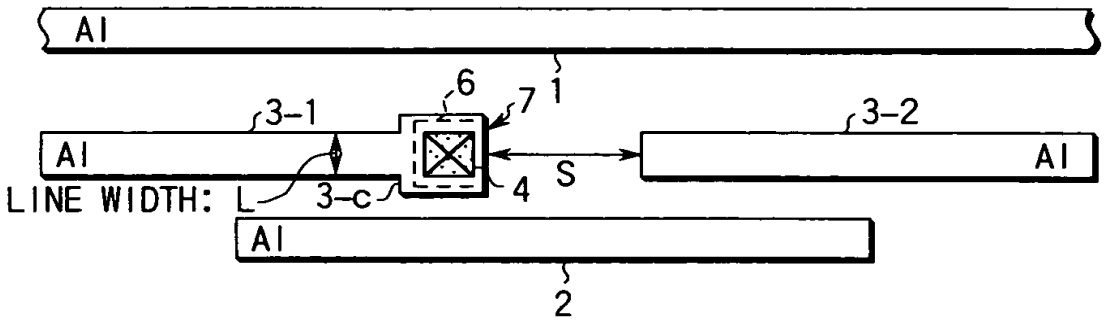


FIG. 7C

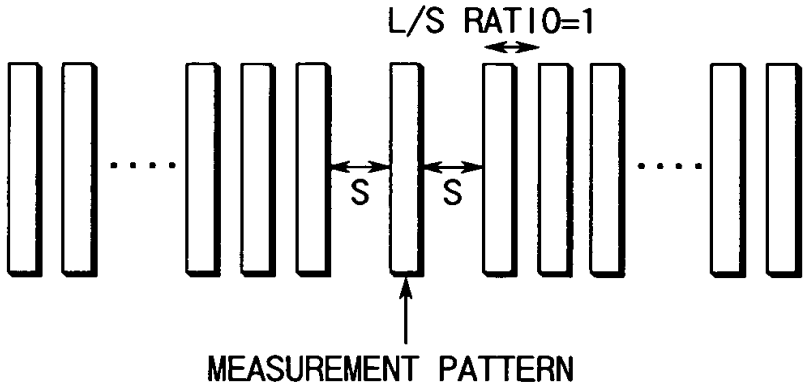

L/S RATIO=1
S
S
MEASUREMENT PATTERN

FIG. 7D

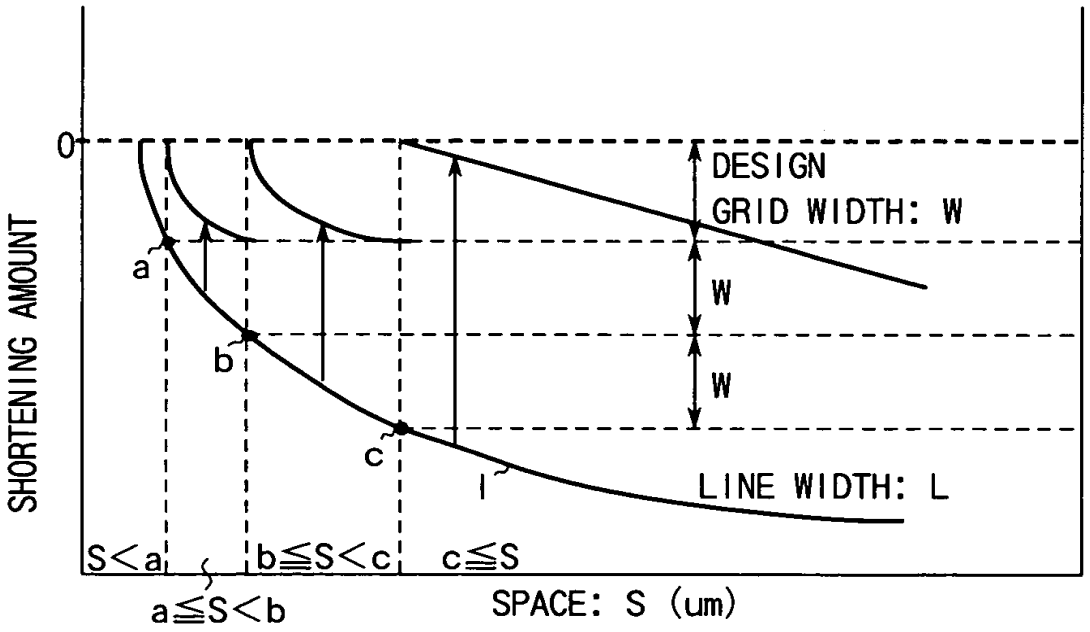

0
SHORTENING AMOUNT
DESIGN
GRID WIDTH: W
W
W
a
b
c
l
LINE WIDTH: L
S<a
a≦S<b
b≦S<c
c≦S
SPACE: S (um)

FIG. 7E

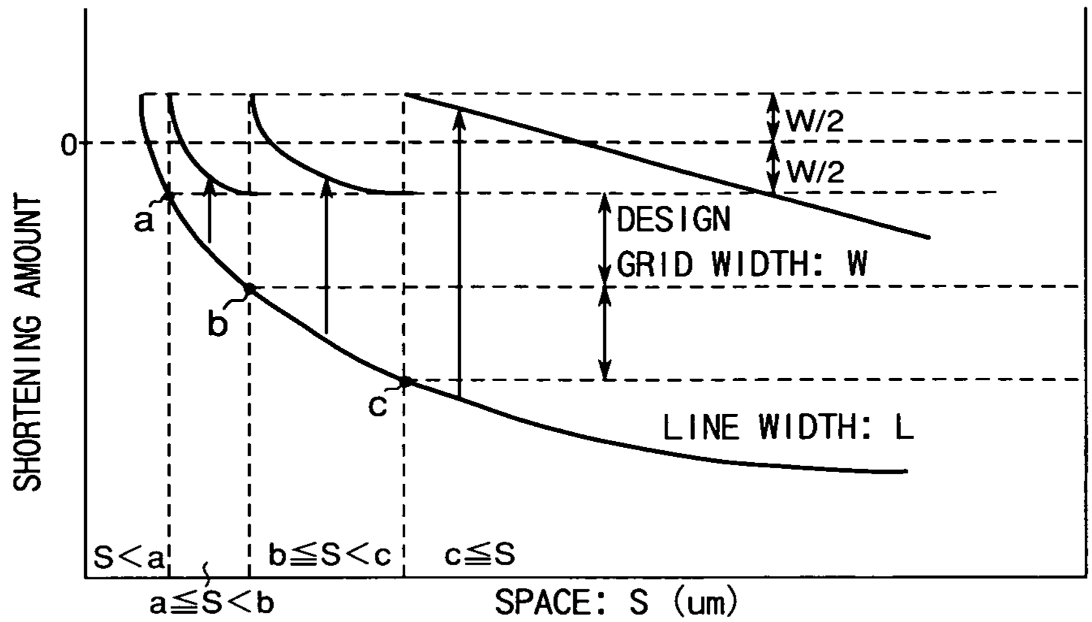


FIG. 7F

SPEACE	FRINGE
S<a	0
a≦S<b	+W
b≦S<c	+2W
S≧c	+3W

FIG. 7G

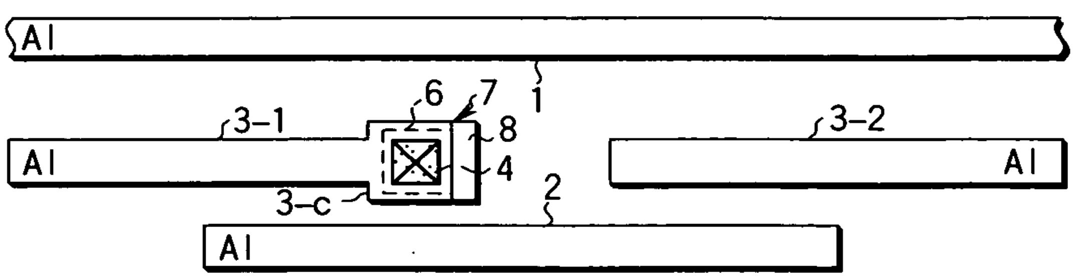


FIG. 7H

CORRECTING FLOW

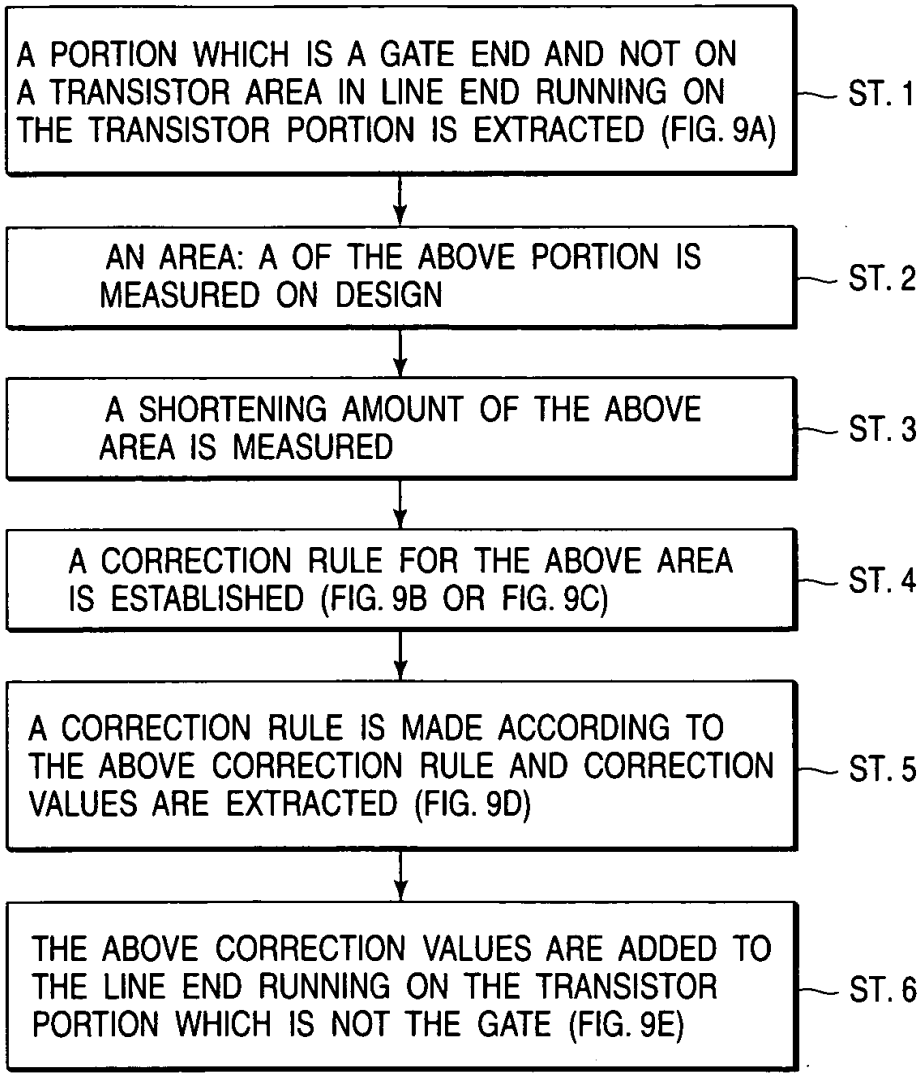


FIG. 8

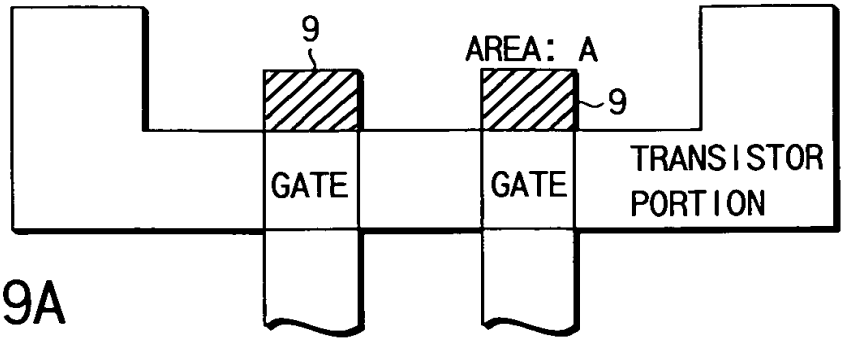


FIG. 9A

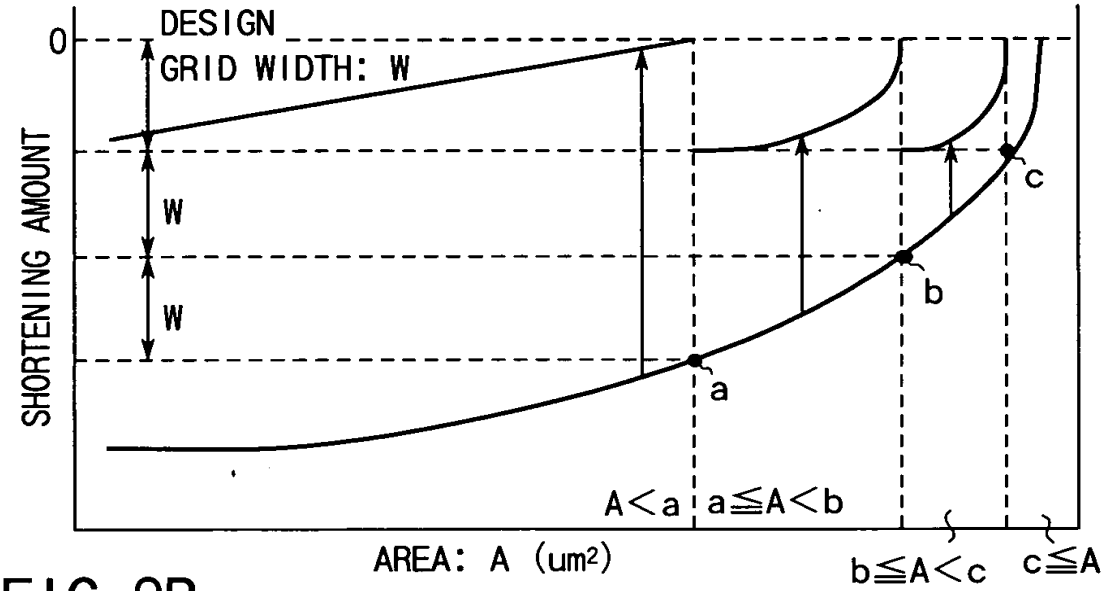


FIG. 9B

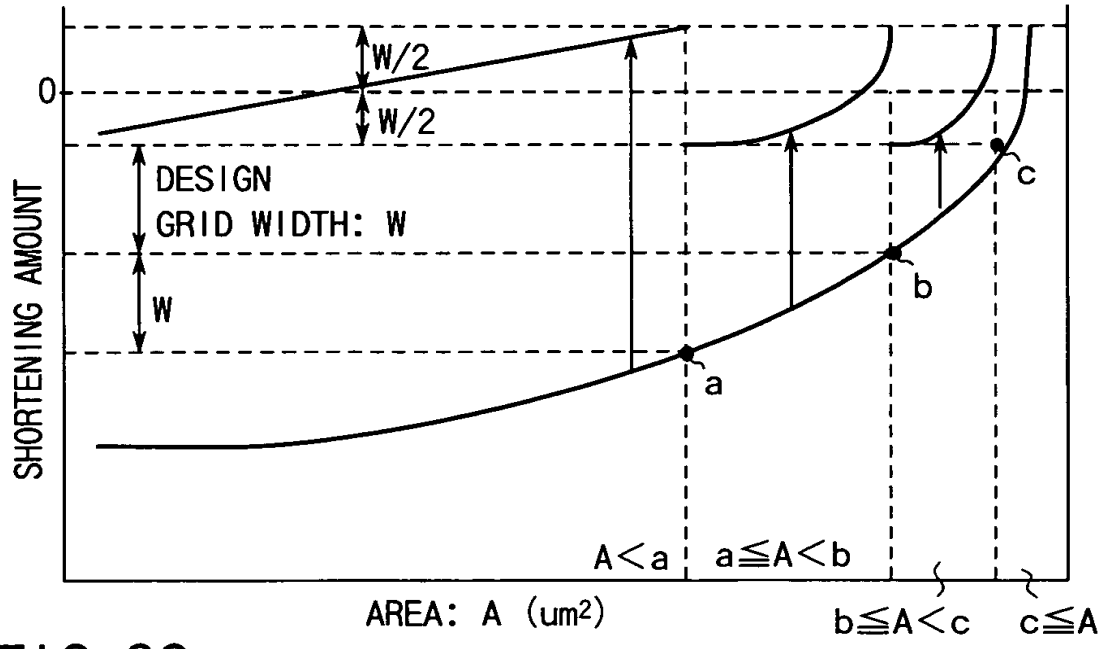


FIG. 9C

AREA: A	FRINGE
$A < a$	+3W
$a \leqq A < b$	+2W
$b \leqq A < c$	+W
$c \leqq A$	0

FIG. 9D

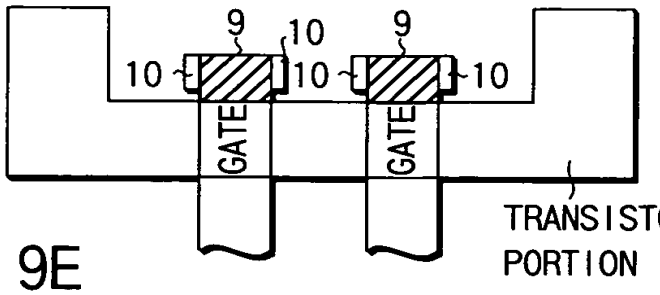


FIG. 9E

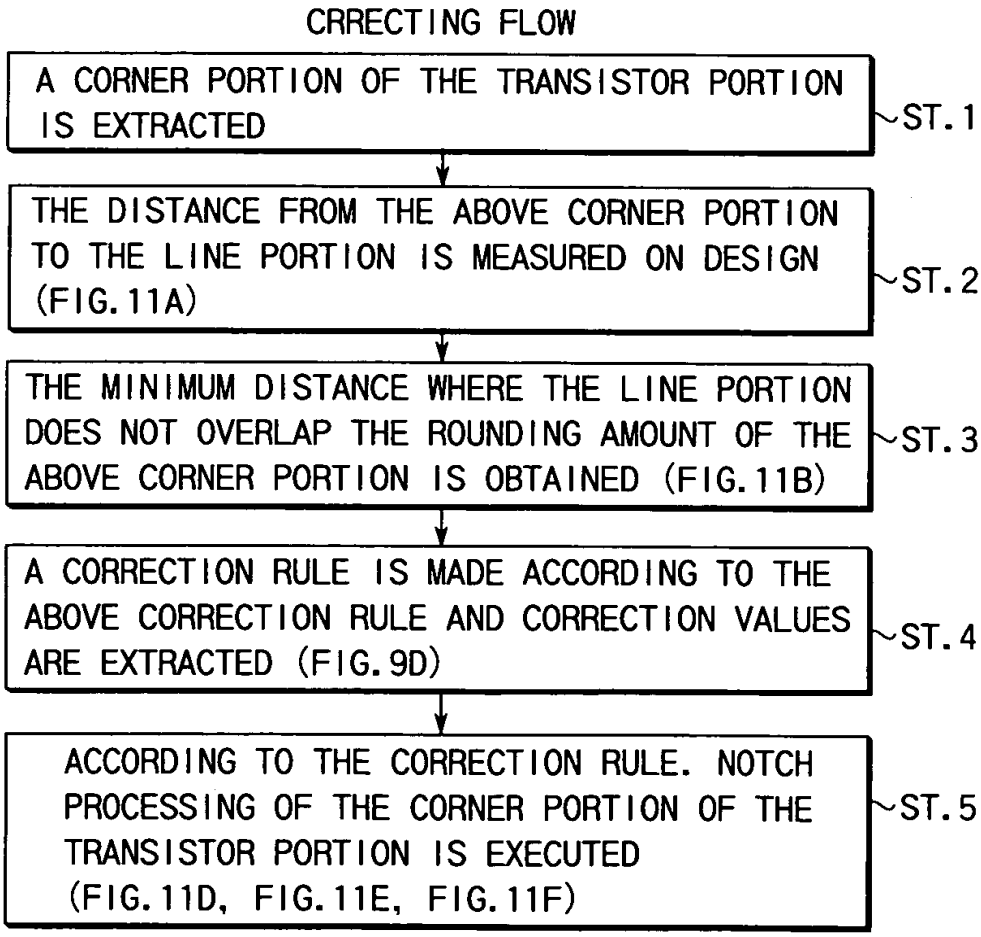


FIG. 10

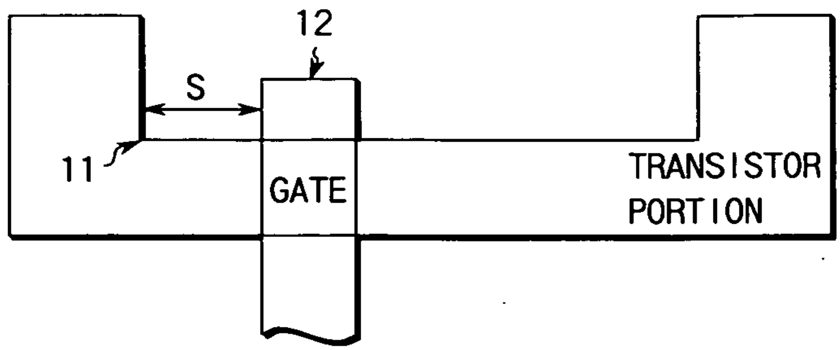


FIG. 11A

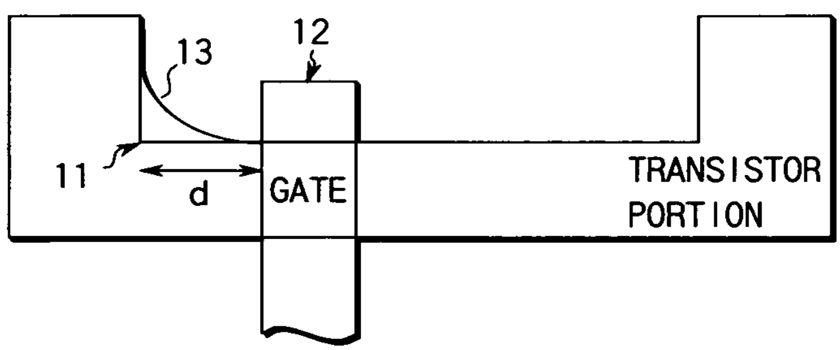


FIG. 11B

DISTANCE: S	CORRECTION
S<d	NOTCH PROCESSING
S≧d	NO NOTCH PROCESSING

FIG. 11C

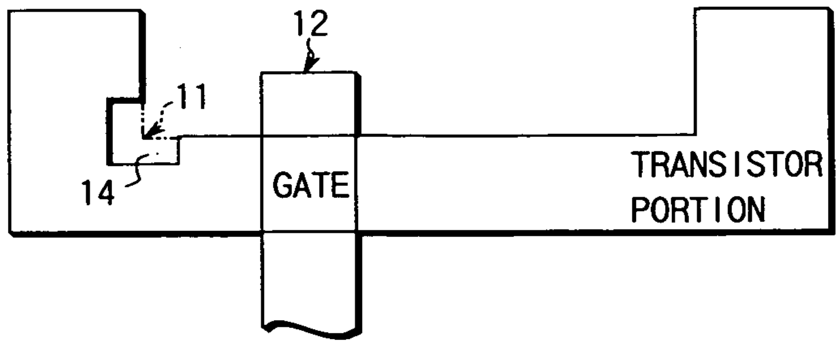


FIG. 11D

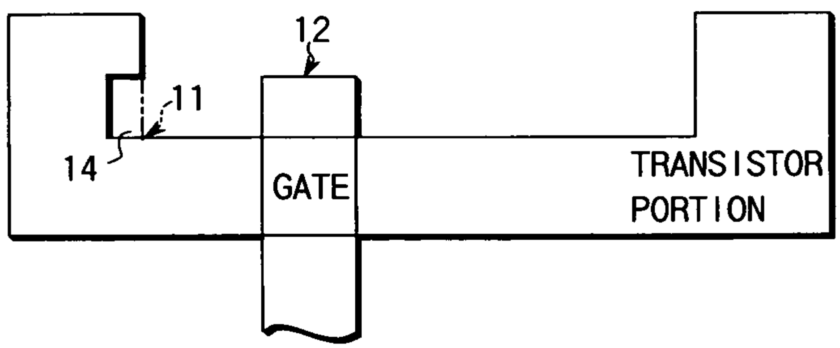


FIG. 11E

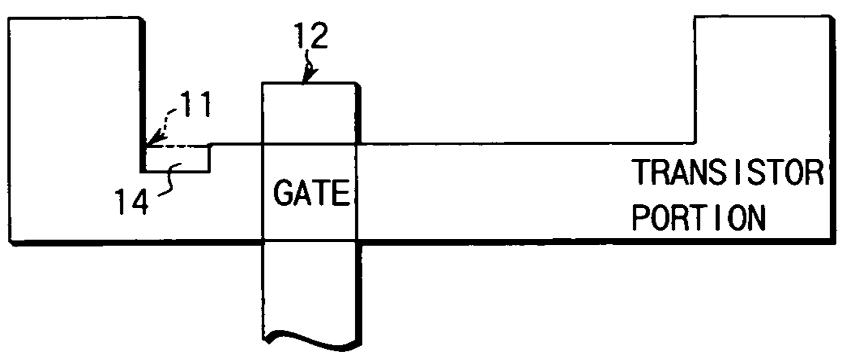


FIG. 11F

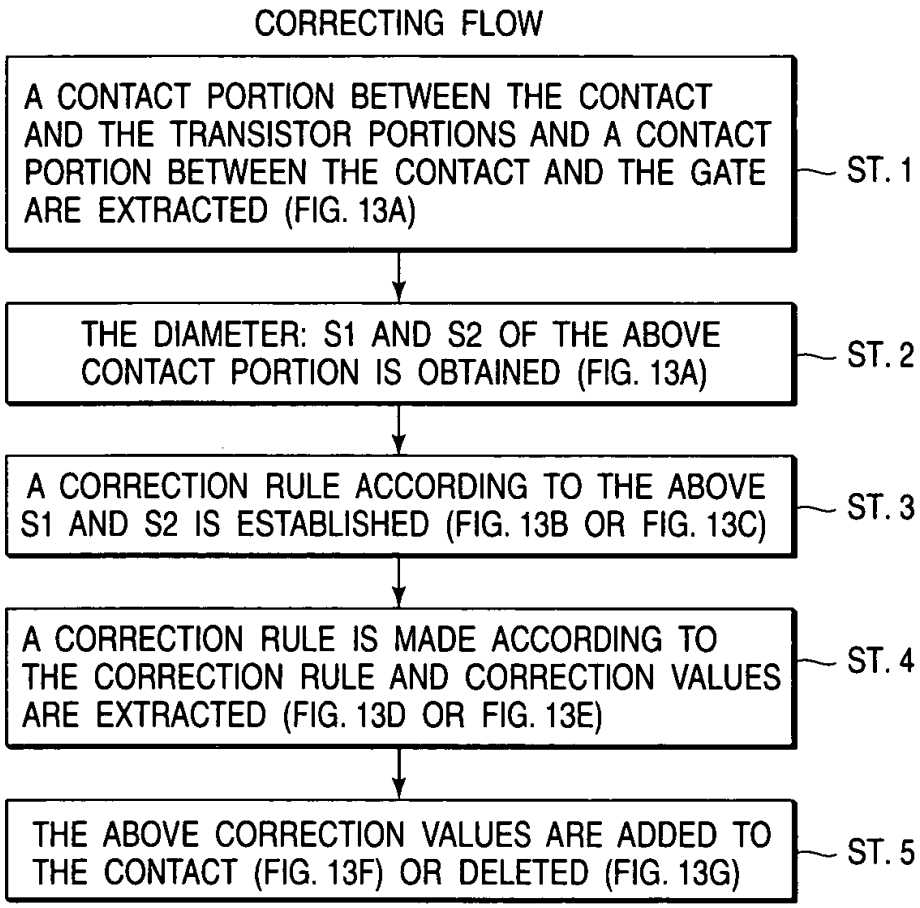

CORRECTING FLOW
A CONTACT PORTION BETWEEN THE CONTACT AND THE TRANSISTOR PORTIONS AND A CONTACT PORTION BETWEEN THE CONTACT AND THE GATE ARE EXTRACTED (FIG. 13A)
ST. 1
THE DIAMETER: S1 AND S2 OF THE ABOVE CONTACT PORTION IS OBTAINED (FIG. 13A)
ST. 2
A CORRECTION RULE ACCORDING TO THE ABOVE S1 AND S2 IS ESTABLISHED (FIG. 13B OR FIG. 13C)
ST. 3
A CORRECTION RULE IS MADE ACCORDING TO THE CORRECTION RULE AND CORRECTION VALUES ARE EXTRACTED (FIG. 13D OR FIG. 13E)
ST. 4
THE ABOVE CORRECTION VALUES ARE ADDED TO THE CONTACT (FIG. 13F) OR DELETED (FIG. 13G)
ST. 5

FIG. 12

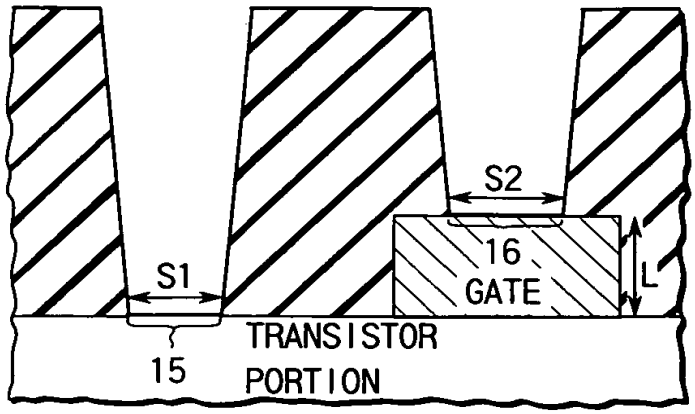


FIG. 13A

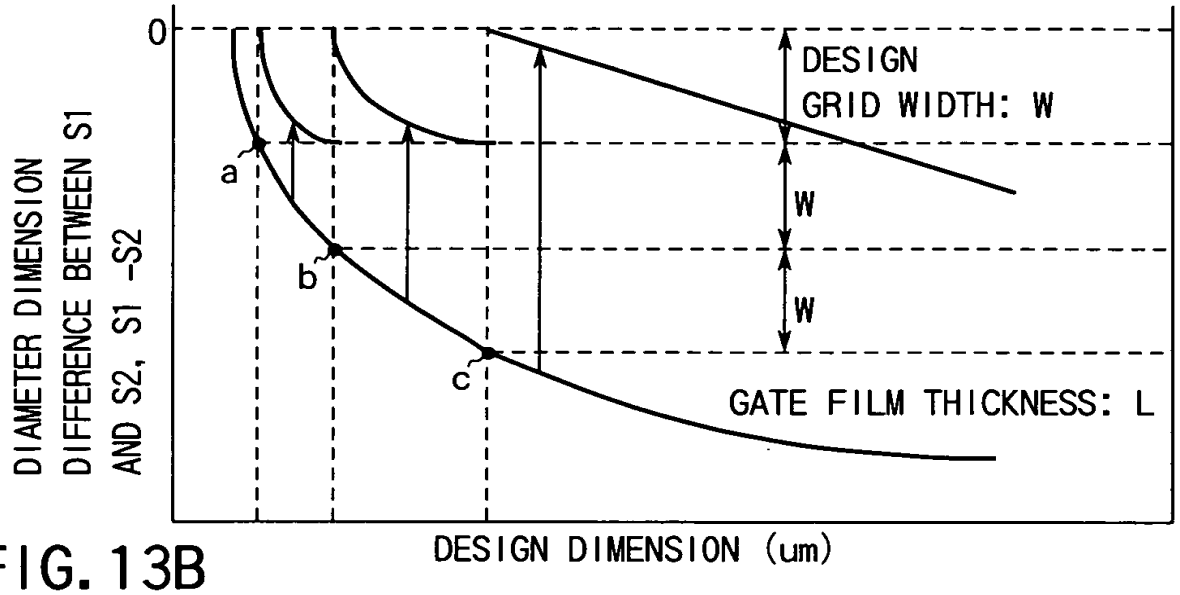


FIG. 13B

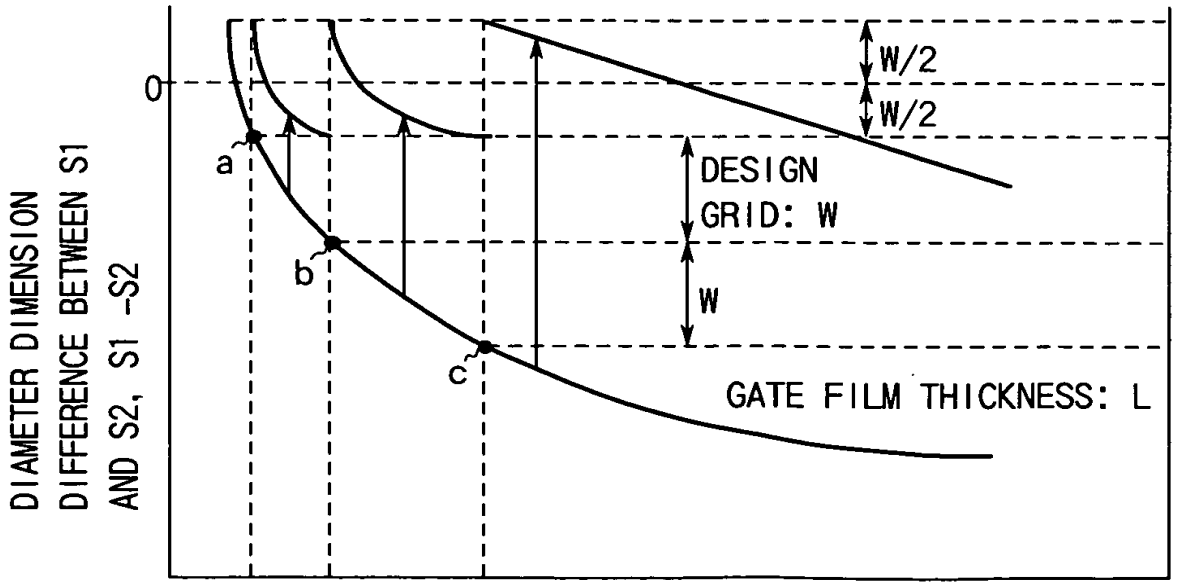


FIG. 13C

DESIGN DIMENSION	BIAS AMOUNT TO BE ADDED TO S1
S≦a	0
a<S≦b	+W
b<S≦c	+2W
S>c	+3W

FIG. 13D

DESIGN DIMENSION	BIAS AMOUNT TO BE SUBTRACTED FROM S2
S≦a	0
a<S≦b	−W
b<S≦c	−2W
S>c	−3W

FIG. 13E

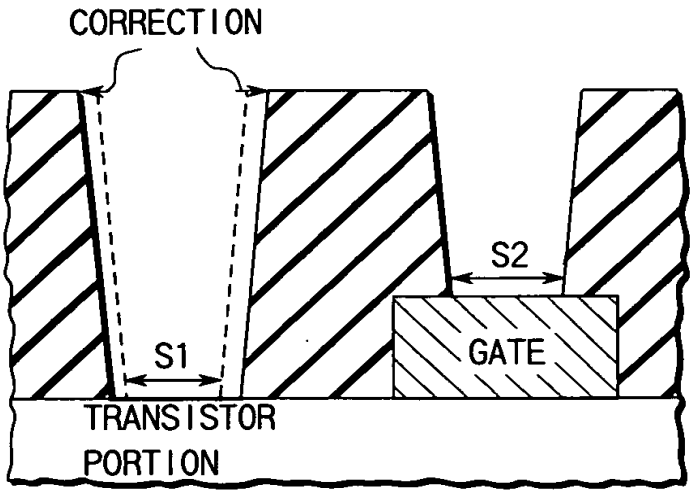


FIG. 13F

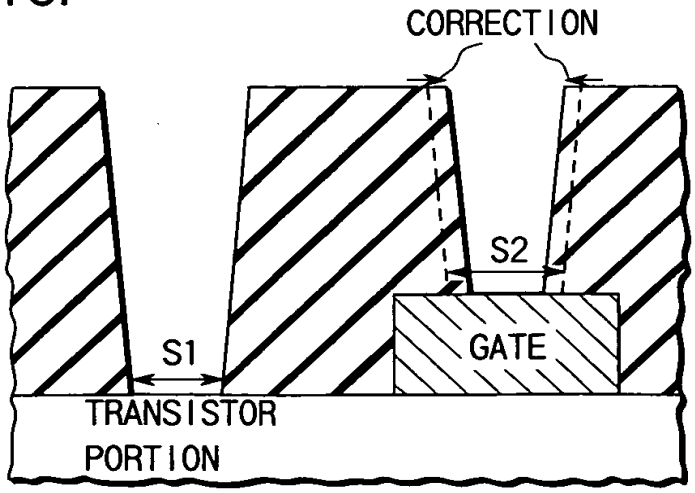
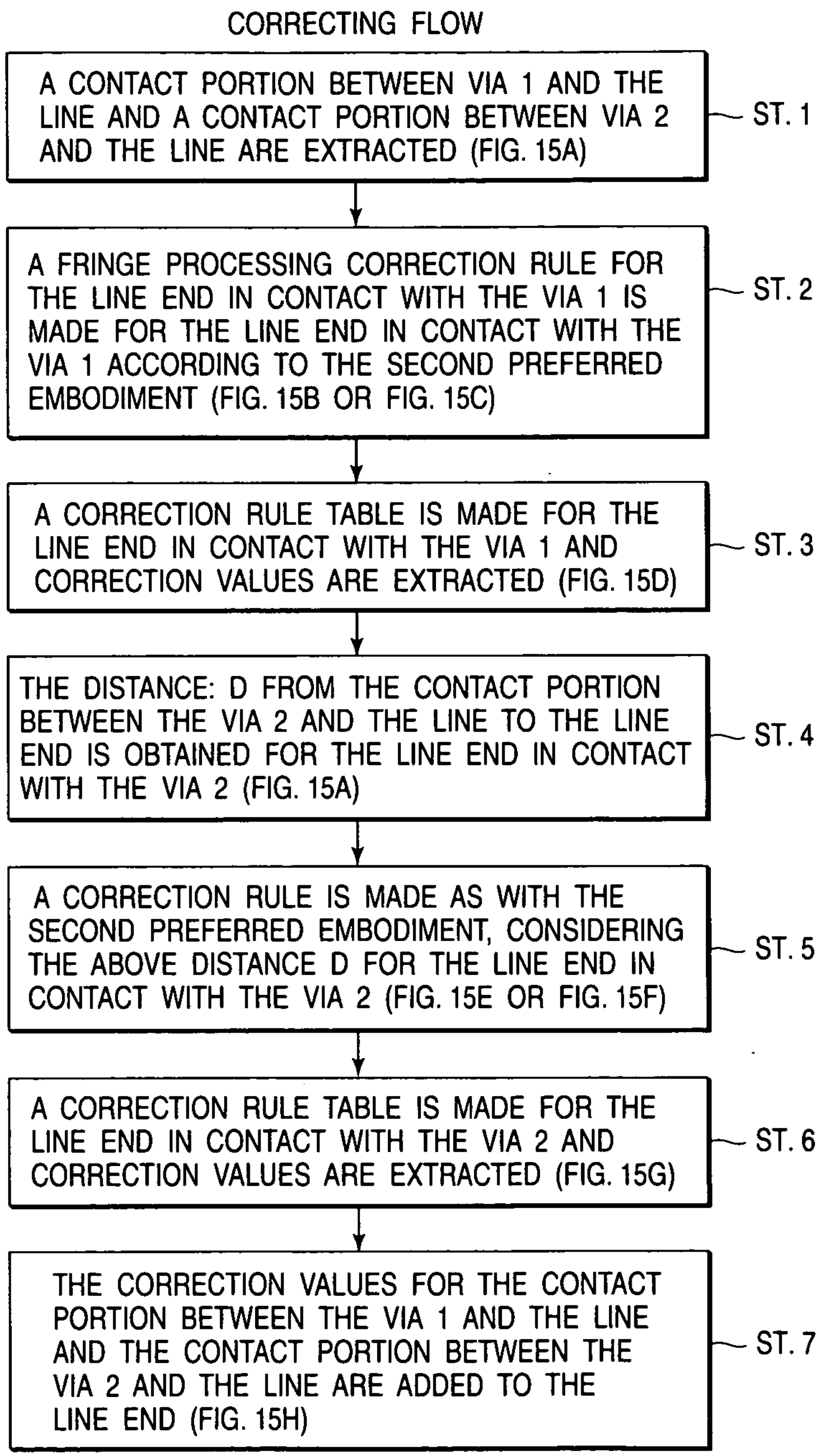


FIG. 13G


CORRECTING FLOW
A CONTACT PORTION BETWEEN VIA 1 AND THE LINE AND A CONTACT PORTION BETWEEN VIA 2 AND THE LINE ARE EXTRACTED (FIG. 15A)
ST. 1
A FRINGE PROCESSING CORRECTION RULE FOR THE LINE END IN CONTACT WITH THE VIA 1 IS MADE FOR THE LINE END IN CONTACT WITH THE VIA 1 ACCORDING TO THE SECOND PREFERRED EMBODIMENT (FIG. 15B OR FIG. 15C)
ST. 2
A CORRECTION RULE TABLE IS MADE FOR THE LINE END IN CONTACT WITH THE VIA 1 AND CORRECTION VALUES ARE EXTRACTED (FIG. 15D)
ST. 3
THE DISTANCE: D FROM THE CONTACT PORTION BETWEEN THE VIA 2 AND THE LINE TO THE LINE END IS OBTAINED FOR THE LINE END IN CONTACT WITH THE VIA 2 (FIG. 15A)
ST. 4
A CORRECTION RULE IS MADE AS WITH THE SECOND PREFERRED EMBODIMENT, CONSIDERING THE ABOVE DISTANCE D FOR THE LINE END IN CONTACT WITH THE VIA 2 (FIG. 15E OR FIG. 15F)
ST. 5
A CORRECTION RULE TABLE IS MADE FOR THE LINE END IN CONTACT WITH THE VIA 2 AND CORRECTION VALUES ARE EXTRACTED (FIG. 15G)
ST. 6
THE CORRECTION VALUES FOR THE CONTACT PORTION BETWEEN THE VIA 1 AND THE LINE AND THE CONTACT PORTION BETWEEN THE VIA 2 AND THE LINE ARE ADDED TO THE LINE END (FIG. 15H)
ST. 7

F I G. 14

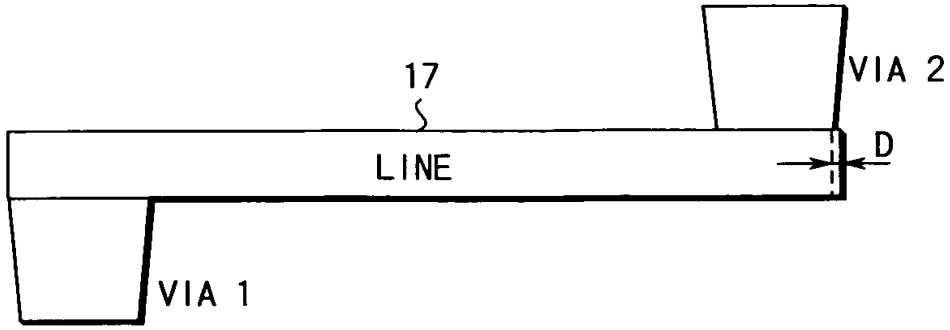


FIG. 15A

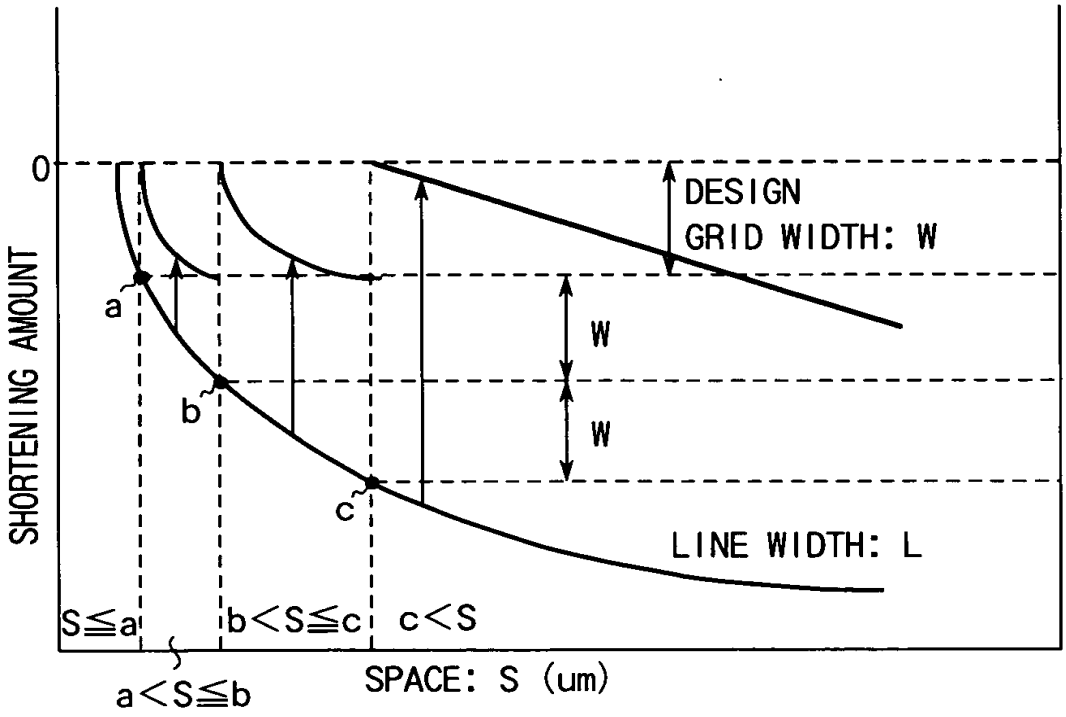


FIG. 15B

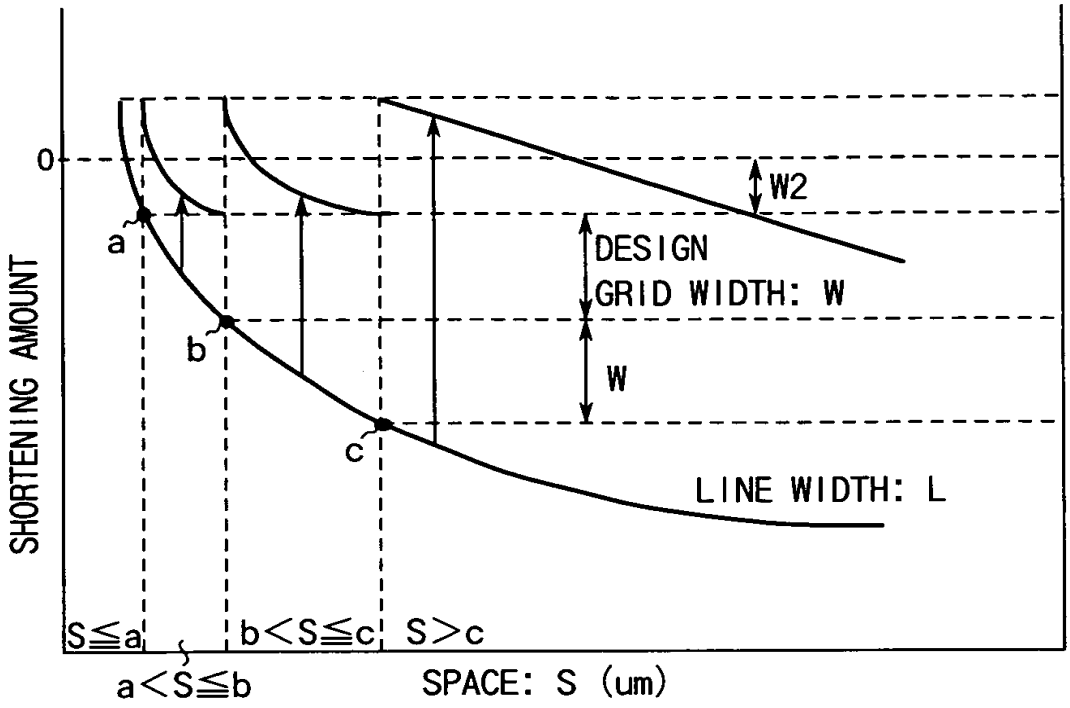


FIG. 15C

SPACE	FRINGE
S≦a	0
a<S≦b	+W
b<S≦c	+2W
S>c	+3W

FIG. 15D

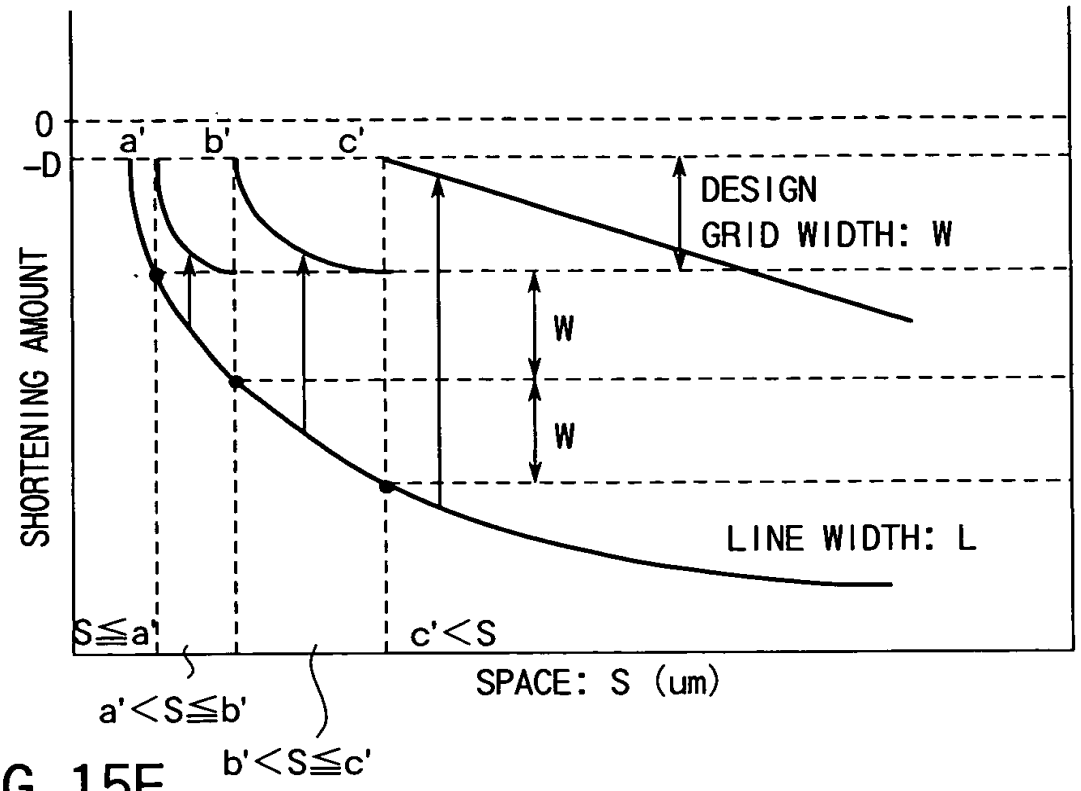


FIG. 15E

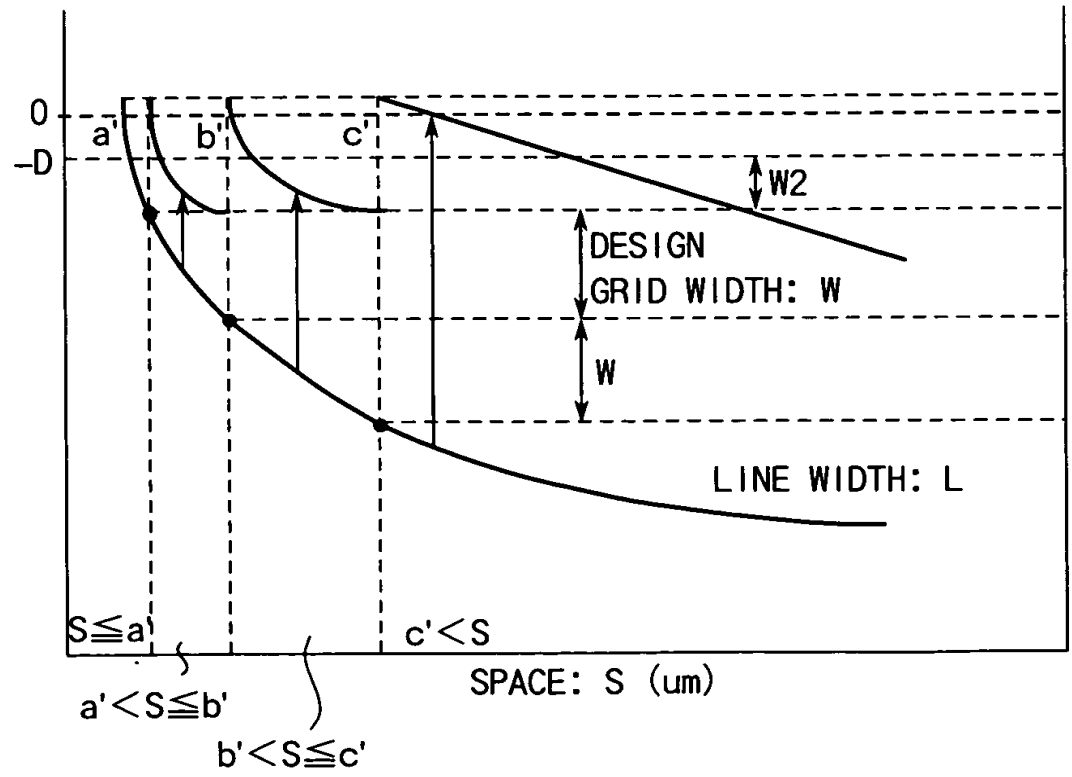


FIG. 15F

SPACE	FRINGE
$S \leqq a'$	0
$a' < S \leqq b'$	+W
$b' < S \leqq c'$	+2W
$S > c'$	+3W

FIG. 15G

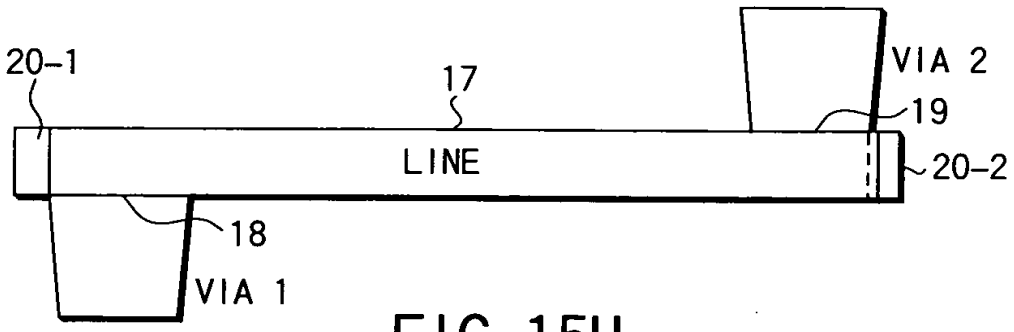


FIG. 15H

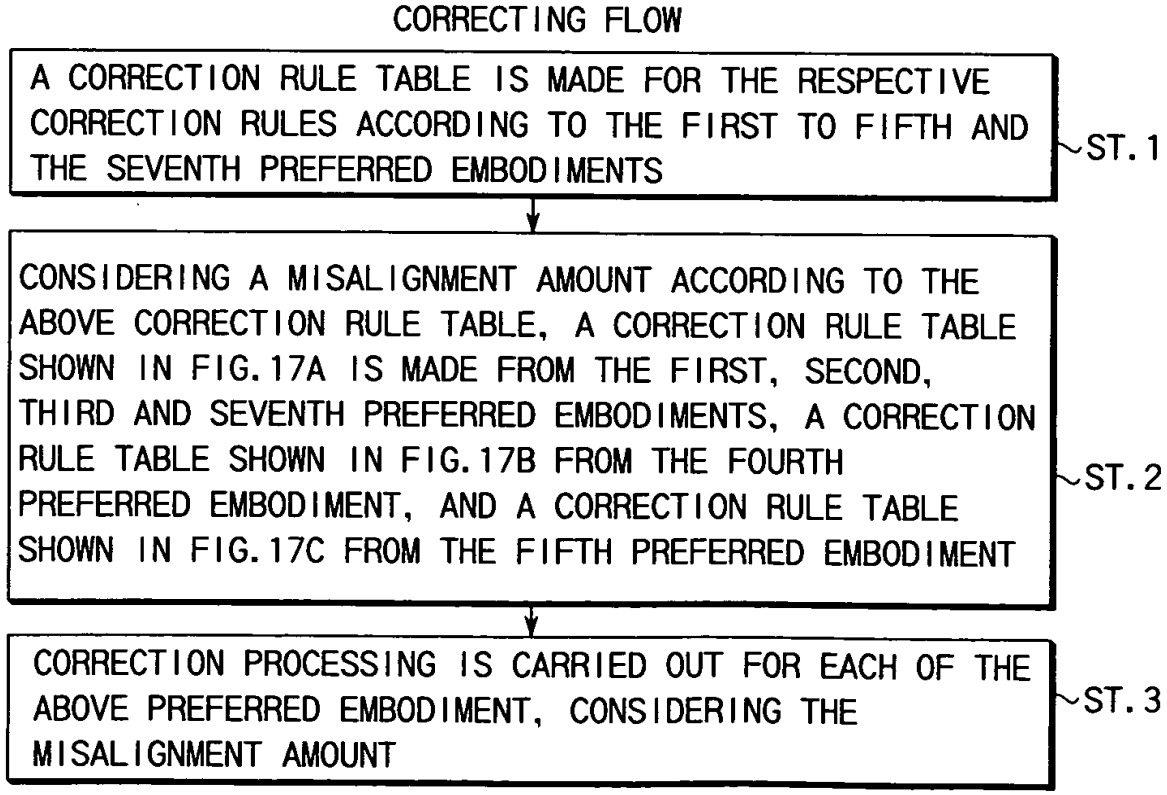


FIG. 16

SPACE	FRINGE
S≦a	+C
a<S≦b	+W+C
b<S≦c	+2W+C
S>c	+3W+C

FIG. 17A

AREA	FRINGE
S≦a	+3W+C
a<S≦b	+2W+C
b<S≦c	+W+C
S>c	+C

FIG. 17B

DISTANCE: S	CORRECTION
S<a−C	NOTCH PROCESSING
S≧a−C	NO NOTCH PROCESSING

FIG. 17C

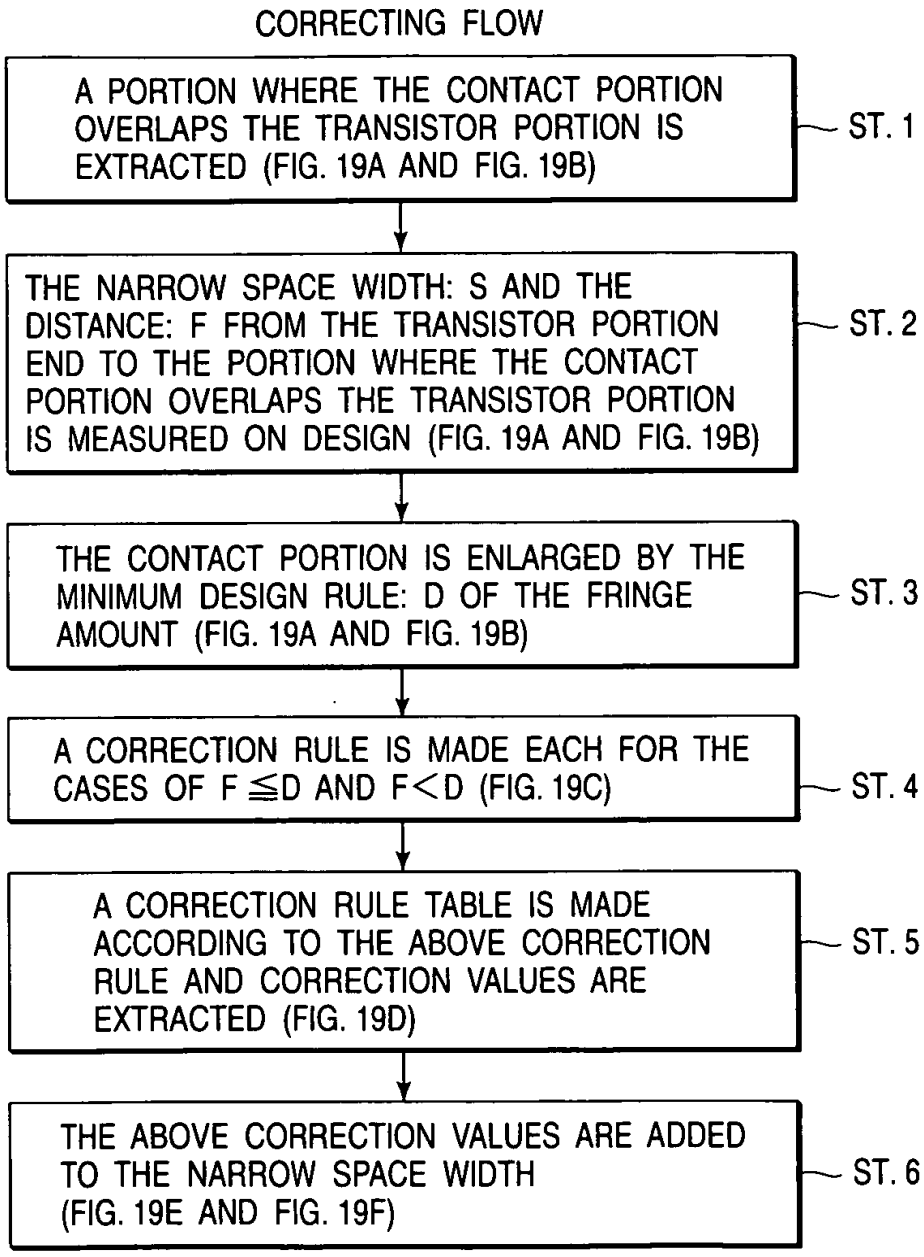

CORRECTING FLOW
A PORTION WHERE THE CONTACT PORTION OVERLAPS THE TRANSISTOR PORTION IS EXTRACTED (FIG. 19A AND FIG. 19B)
ST. 1
THE NARROW SPACE WIDTH: S AND THE DISTANCE: F FROM THE TRANSISTOR PORTION END TO THE PORTION WHERE THE CONTACT PORTION OVERLAPS THE TRANSISTOR PORTION IS MEASURED ON DESIGN (FIG. 19A AND FIG. 19B)
ST. 2
THE CONTACT PORTION IS ENLARGED BY THE MINIMUM DESIGN RULE: D OF THE FRINGE AMOUNT (FIG. 19A AND FIG. 19B)
ST. 3
A CORRECTION RULE IS MADE EACH FOR THE CASES OF F ≦ D AND F < D (FIG. 19C)
ST. 4
A CORRECTION RULE TABLE IS MADE ACCORDING TO THE ABOVE CORRECTION RULE AND CORRECTION VALUES ARE EXTRACTED (FIG. 19D)
ST. 5
THE ABOVE CORRECTION VALUES ARE ADDED TO THE NARROW SPACE WIDTH (FIG. 19E AND FIG. 19F)
ST. 6

FIG. 18

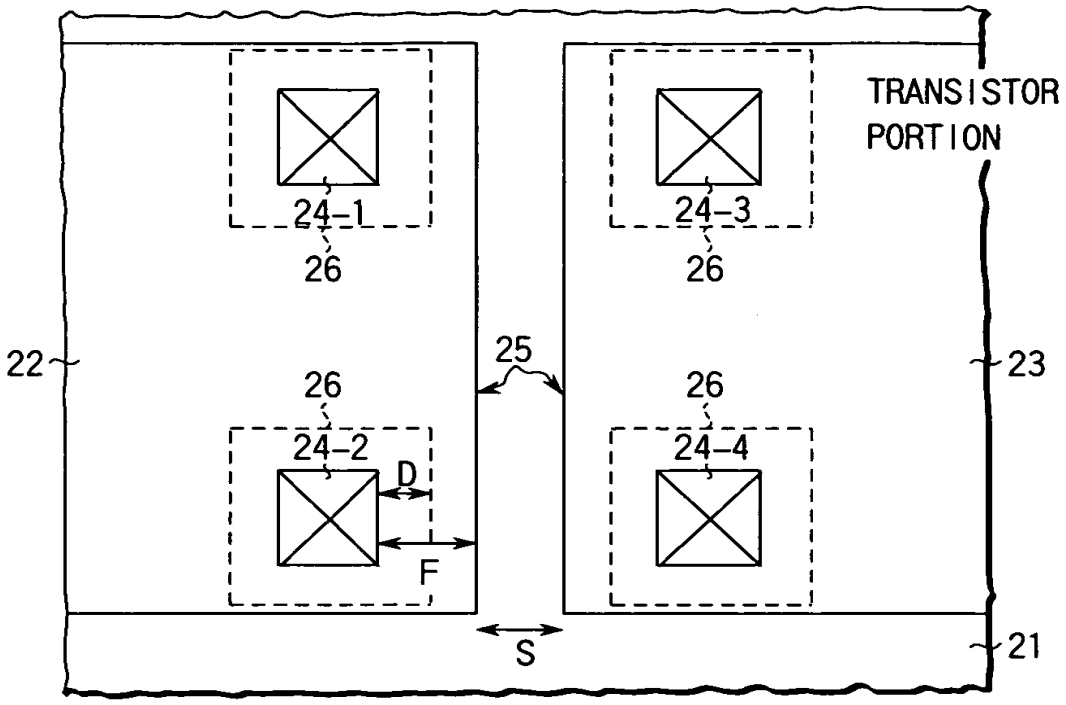


FIG. 19A

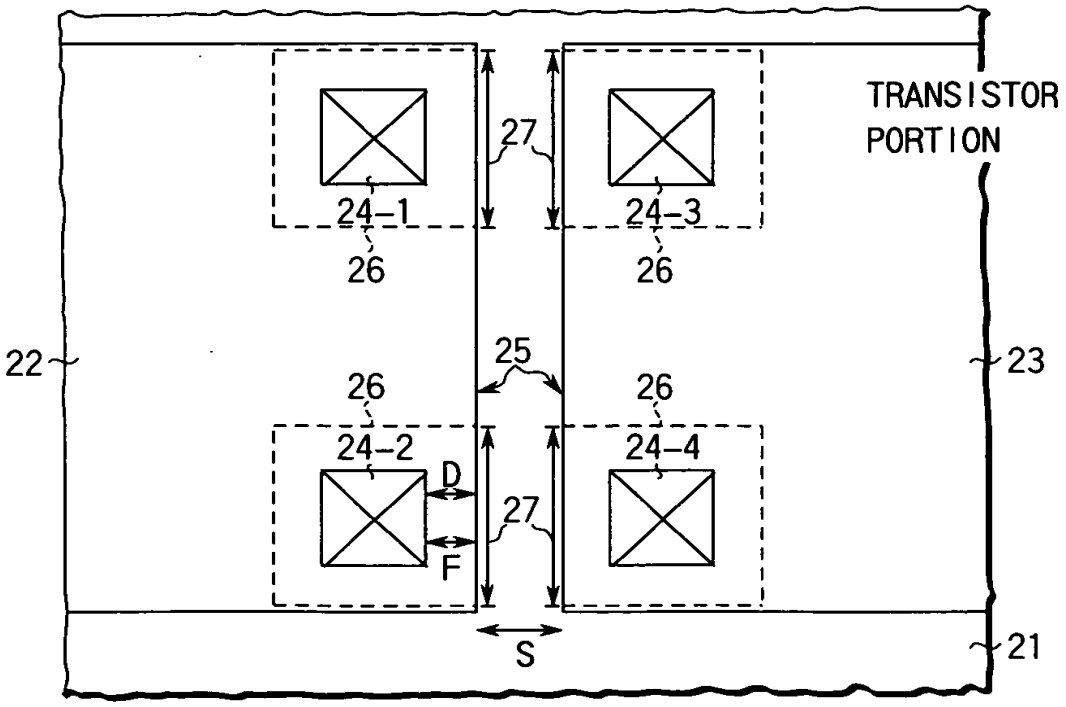


FIG. 19B

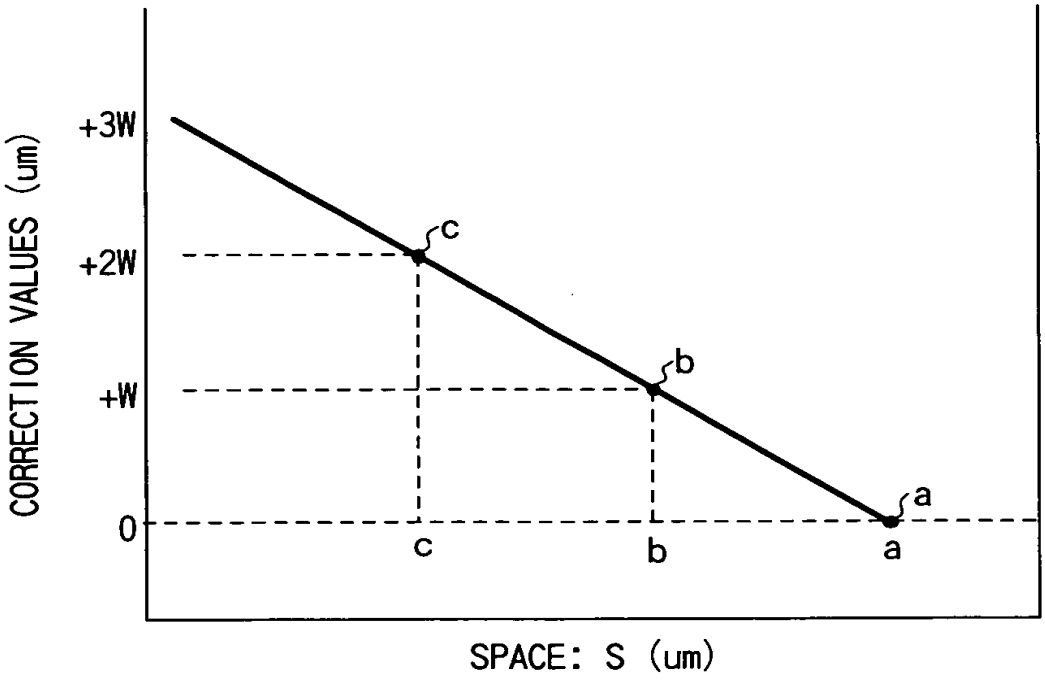


FIG. 19C

SPACE	CORRECTION
S≧a	0
b≦S<a	+W
c≦S<b	+2W
S<c	+3W

FIG. 19D

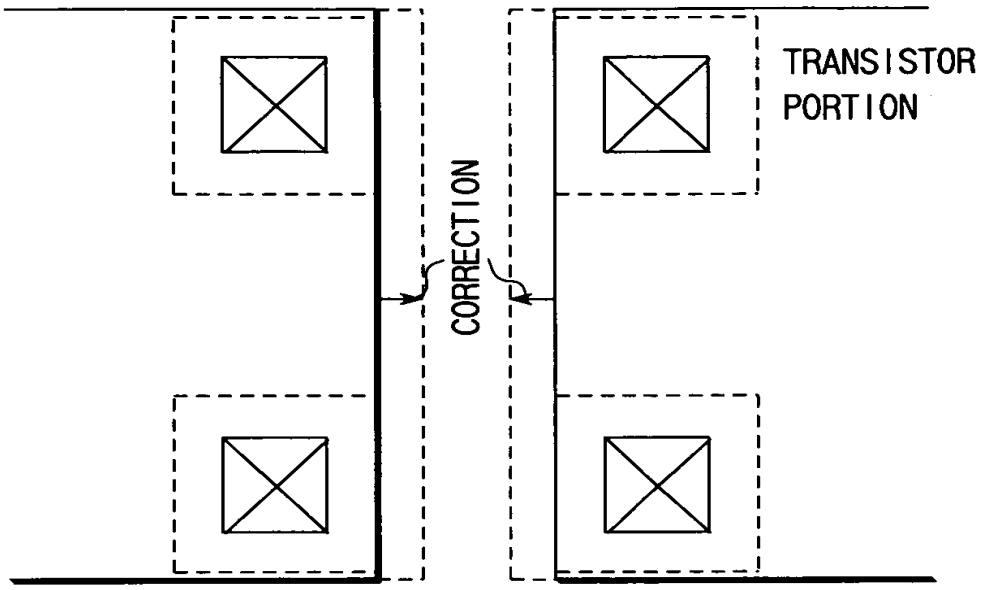


FIG. 19E

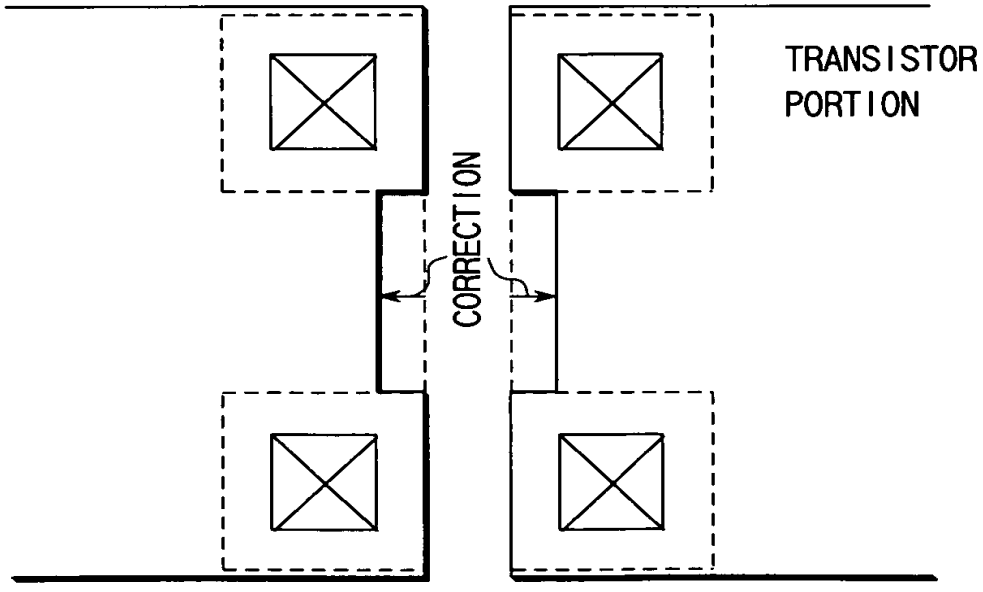


FIG. 19F